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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/608,158

06/30/2003

Klaus Ingemann Pedersen

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EXAMINER

CHO, HONG SOL

ART UNIT

PAPER NUMBER

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/608,158

Applicant(s)

PEDERSEN, KLAUS INGEMANN

Examiner

Hong Cho

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7-11 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 2-6 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____   | 6) <input type="checkbox"/> Other: ____                           |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informality:

On page 8, line 3,  $R_n$  is not defined.

### *Claim Objections*

2. Claims 3, 4 and 6 are objected to because of the following informalities:

Re claim 3, line 2, "adapted to" falls to the optional claim limitation that does not require mapping function be actually done.

Re claim 4, line 3, "less or equal" should read - - less than or equal to - - .

Re claim 6, line 2, "said average value" should read - - said average preceding value - - .

Re claim 6, lines 3 and 5, "greater or equal" should read - - greater than or equal to - - .

Re claim 6, line 4, "then" should read - - than - - .

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 8, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Damnjanovic (US 6917812).

Re claims 1 and 11, Damnjanovic discloses scheduling data packets in communication networks (*scheduling data packets in time-shared channels*, column 1, lines 6-9). Damnjanovic discloses using proportional fair scheduling to serve the user having the largest ratio of requested service rate (*a transmission parameter*) to average served rate (*an average preceding value of said transmission parameter*) (*determining a scheduling priority for a user based on a ratio between a transmission parameter offered to said user and an average preceding value of said transmission parameter provided to said user within a predetermined time period*, column 1, lines 20-23). Damnjanovic discloses changing the determined scheduling priority based on the difference between the average served rate (*the average preceding value*) and minimum data throughput (*a minimum average value allocated to the user*) (*changing said determined scheduling priority in dependence on a difference between said average preceding value and a minimum average value allocated to said user*, column 5, lines 13-17).

Re claim 8, Damnjanovic discloses scheduling in high data rate wireless network (scheduling method used for DSCH packet scheduling in a radio access network, column 1, lines 6-9).

Re claim 10, Damnjanovic discloses the transmission parameter as a throughput of a channel allocated to the user (column 5, lines 14-15).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Damnjanovic in view of Wicklund (US 6337860).

Re claim 7, Damnjanovic discloses all of the limitations of the base claim, but fails to teach serving users with the same scheduling priority in a random order.

Wicklund discloses making random selection if there are cells with the same priority. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the scheduler of Damnjanovic to implement the function of random selection for the benefit of serving a user in a timely manner without going through a contention process among users with the same priority.

Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damnjanovic in view of Yi et al (US 20030101274), hereinafter referred to as Yi.

Re claims 9 and 15, Damnjanovic discloses all of the limitations of the base claim, but fails to disclose using the scheduling method for HSDPA in a MAC-hs unit of a Node B device. Yi discloses a scheduler in MAC-hs unit of a Node B device (paragraph [0107], lines 1-2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the scheduling method of Damnjanovic to be implemented in MAC-hs unit of a Node B device of Yi for the benefit of utilizing the scheduling method in UTRAN.

Claim 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damnjanovic.

Re claims 13 and 14, Damnjanovic discloses all of the limitations of the base claim, but fails to disclose disabling priority changing means by bypassing the priority change means by switching means. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Damnjanovic to implement switching function by setting desired minimum data throughput to zero since both proportional fair and minimum-rate scheduling are similar at the higher data rates.

*Allowable Subject Matter*

7. Claims 2-6 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement for reasons for allowance.

8. Claims 2 and 12 are allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest using a mapping function for mapping said average preceding value to a reduced value based on said difference between said average preceding value and said allocated minimum average value.

*Conclusion*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087.

The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hc  
Hong Cho  
Patent Examiner  
3/19/07

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